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* NOTICES *

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CLAIMS

[Claim(s)]
1. It is the Approach of Making it Possible to Start Commercial Transaction for which Seller Who Communicates on Semi- Public Network, and Buyer Need Payment of Fund from Buyer to Seller, and is this Approach. : It is Reception from that Seller about Message of Seller Who Specifies Buyer and Dealings on this Semi- Public Network.;
It is delivery on this semi- public network about the message which specifies these dealings as the specified buyer.;
It is reception on this semi- public network about the message which indicates admission or refusal of the dealings by volition from the specified buyer.;
If it is indicating that the buyer's message approves the dealings, the information for enabling it the payment for dealings of the buyer will be told to the seller's agent through the safe communication link root.;
The aforementioned safe communication link root is minded and it is reception about a license sign from the seller's agent.;
The approach characterized by consisting of the step which sends the message containing this license sign signed by cryptography to the seller through this semi- public network.
2. It is an approach given in the 1st term of a claim which has the step which connects a computer system to this semi-public network, and is characterized by said computer system having a means for transmitting and receiving a message.

3. Approach given in the 1st term of claim characterized by using ****** key cryptography signed by cryptography.
4. Encode this License Sign by Cryptography.;
An approach given in the 1st term of a claim characterized by having further the step which attaches the license sign encoded by the aforementioned cryptography to the message to this seller.
5. The message received from the seller to whom rating is given on this semi- public network is an approach given in the 1st term of a claim characterized by being an E-mail message.
6. The message sent to the buyer by whom the above was specified on this semi- public network is an approach given in the 1st term of a claim characterized by being an E-mail message.
7. The message received from the buyer by whom the above was specified on this semi- public network is an approach given in the 1st term of a claim characterized by being an E-mail message.
8. The message sent to the aforementioned seller on this semi- public network is an approach given in claim **** 1 characterized by being an E-mail message.
9. This semi- public message is an approach given in the 1st term of a claim characterized by being the Internet.
10. An approach given in the 1st term of a claim characterized by having further the step which gives the user of this semi- public network rating as a seller.
11. An approach given in the 1st term of a claim characterized by having further the step which maintains the database of the account owner who is the user of this semi- public network.
12. Said database is an approach given in the 11th term of a claim characterized by including the information about the account owner to whom rating as the account owner to whom rating as a seller is given, and a seller is not given.
13. This database is an approach given in the 11th term of a claim characterized by including the information which shows whether rating as a seller is given to the account owner.
14. It Has Further Step Which Maintains 1st System and 2nd System.;
Said 1st system has the means of communications which can access this semi- public network.;
Said 2nd system has the means of communications which can access the agent of the seller who interfaces with a banking card processing network.;
Said approach is an approach given in the 1st term of a claim further characterized by having the step which tells the information about the dealings to this 2nd system from this 1st system after approval by the buyer of dealings.

15. It Has Further Step Which Maintains 1st System and 2nd System.;
Said 1st system has an account owner's 1st database, and said account owner contains the 1st group of the account owner to whom it is the user of this semi- public network, and rating as a seller is given, and the 2nd group of the account owner to whom rating as a seller is not given.;
Said 2nd system is an approach given in the 1st term of a claim characterized by including the means for enabling said 2nd group's account owner payment [to have the 2nd database of said account owner including the information which accompanies said 2nd group's account owner, and].
16. An approach given in the 15th term of a claim characterized by having further the step which maintains a fire wall between said 1st system and said 2nd system.
17. It is an approach given in claim 1 term characterized by performing the communication link between this 1st system and this 2nd system by batch processing.
18. Dealings are approaches given in the 1st term of a claim characterized by being the dealings about the goods with which a seller provides a buyer, or service.
19. It is Approach of Employing System Which Makes it Possible to Start Commercial Transaction for which Seller Who Communicates on Semi- Public Network, and Buyer Need Payment of Fund by the Buyer about Goods of Value or Service with which the Buyer is Provided from the Seller, and is Said Approach. : Rating as a Seller is Given to User of 1st Group of this Semi- Public Network.;
The banking card payment information about the user of the 2nd group of this semi- public network is maintained to the storage of the safe part of a computer system.;
Although it has access to this semi- public network of said computer system, from the aforementioned safe part of this computer system, the list of the 1st and 2nd aforementioned groups' users is maintained to the storage put on the part isolated.;
It is delivery about the message for a check [to the user who answers the message on this semi- public network from the user of this 1st group that specifies the dealings which may be conducted with this 2nd group's user and by whom this 2nd group was specified] on this semi- public network.;
If the message which checks dealings with this user of this 1st group is received from this user of this 2nd group on this semi- public network, it will be the root safe for the agent of this user of this 1st group about banking card information, and it is delivery.;
If a license sign is received through the root safe from this agent, this license sign will be signed by cryptography.;
The approach characterized by consisting of the step which sends this license sign to this user of this 1st group through this semi- public network.
20. An approach given in the 19th term of a claim characterized by having further the step which receives the license for acting as said agent from said 1st group's user.
21. Said license sign is an approach given in the 20th term of a claim characterized by being created by said system.
22. It is System for Enabling Users to Carry Out Commercial Transaction by Semi- Public Computer Network, and is this System. : Means for Sending Message to User in this Semi- Public Network, or Receiving;
Means for specifying the user to whom rating as a seller is given;
Means for identifying the message received from the user to whom rating as a seller is given;
Means for creating the message to the user who is the aforementioned buyer who searches for the check of dealings between said user who is a seller, and the user who is the buyer specified in the message received from the seller who has the rating;
Means for identifying the message from this buyer that indicates his intention of the check of these dealings;
Means for isolating transfer of a message with a user from the financial information which accompanies said user who is a buyer for settling a financial transaction;
Means for sending the financial information which accompanies a buyer through the root safe for a seller's agent to the checked dealings;
Means for receiving a license sign from this seller's agent;
Means for signing this license sign by cryptography;
The system characterized by consisting of the means for creating the message containing the license sign encoded by the cryptography addressed to this seller.
23. It is Approach of Employing Computer System so that User of this Semi- Public Network Can Start Commercial Transaction Which Needs Payment of Fund to Other Users of this Semi- Public Network from One User of Semi- Public Network, and it is this Approach. : It Has Step Which Maintains List of Users of this Semi- Public Network to Which Rating for Functioning as a Seller is Given.;

Having the step which employs the computer system connected to this semi- public network, this computer system has a means for exchanging the user and message of this semi- public network.;
If a message is received from the 1st user to whom rating for functioning as a seller of this semi- public network is given on this semi- public network It has the step which sends a message to the 2nd user of this semi- public network pinpointed by the message from the 1st user on this semi- public network. Said message includes the demand for which it asks so that the dealings specified by the message received from this 1st user may be checked, and is sent to this 2nd user.;
If the check about the dealings is received from this 2nd user, it has the step which pays about this 2nd user and sends information to this 1st user's agent.;
If a license sign is received from this agent, it will be a code about the license sign.
The approach characterized by having the step which it turns and is sent to this 1st user.
24. Use and Pay by Internet and it is System. : Rating as a Seller is Given to User.;
From the seller who was able to give the rating, the Internet is minded for the message which specifies the account identifier about dealings with a buyer currently maintained by this system of the buyer at least, and it is reception.;
The check about these dealings from the buyer is searched for by telling the buyer a message through the Internet.;
If the check about these dealings is received from the buyer through the Internet;
It is delivery to this seller's agent in the root which shifted from the Internet the message which pays about the information about these dealings, and its buyer, and includes information.;
It is reception about the check about these dealings from the seller's agent.;
It is characterized by consisting of telling the seller a license sign, pays, and is a system.
25. An approach given in the 24th term of a claim characterized by having further the step which obtains the license about what is acted as the agent from said seller.
26. as Seller's Agent -- Dealings -- and -- Paying -- Information -- Checking --;
An approach given in the 25th term of a claim characterized by having further the step which creates said check as a seller's agent.
27. An approach given in the 24th term of a claim characterized by having further the step which signs the message containing the license sign told to this seller by cryptography.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
In order to purchase goods and service on the Internet It was computerized, pays and is reference to system-relation application. This application shall be connected with the U.S. copending application 08th for which it applied on September 16, 1994 / No. 308,101, and shall adopt all those contents of an indication in this book by reference.
Background of invention About the system for being made to perform payment about goods and service through a semi- public network, especially the user of the Internet enables it to begin the payment about goods or service to other Internet users, and pays it to them through the Internet, and this invention relates to a system.
The Internet has appeared as a big ensemble of the user with whom it is electronically connected in the world of exchanging a considerable quantity of information easily and periodically. The Internet is continuing contributing to the original purpose of the Internet of contributing to access and information interchange to the information for the research between a government agency, a lab, and a university, and education. Furthermore, the Internet gives its service also to various contractors and forums increasingly exceeding the original target.
It is considered that the Internet is the various products containing goods and the new potential commercial scene of service. There are many advantages in using the Internet as a commercial scene. Although the Internet has the capacity to contribute as goods and a commercial scene of service at present, use of the Internet for this purpose has a slow development rate. One reason nil why such development is insufficient is that it is difficult to carry out payment about goods and service using the Internet. The user of the Internet can send neither cash nor a check through the Internet. It is late to send a check through physical delivery service, and there is a problem on insurance in sending the number of a credit card by the Internet.
By semi- public systems, such as the Internet, it pays, and it is made to be made to the above-mentioned patent application 08th / No. 308,101, and pays to them, and the system is indicated. It pays and a system is helpful for the ability to be made to perform payment which is indicated by the above-mentioned patent application and which is attached to various products, or service and the information product which can be electronically delivered especially without a physical package through a network. Software, a novel, an animated film, a recipe, etc. are contained in an information product.
The above-mentioned pays and it turns out that a system is what has improved. However, the need which pays to the user with the product to sell of the Internet, and asks for a system is still continuing existing. Such a product includes very various goods and services for the exchange about clothing, computer hardware, and a technique and counseling, food miscellaneous goods, the curriculum, the cultivation course, etc. The goods of such a class and service cannot necessarily be electronically sent through a network. Such a product may contain the above information products. Since it offers the medium for taking the user and communication which are interested in a user with the selling product of all these classes purchasing those kinds of products, if the Internet has the system which can be used in order that a positive user may begin the dealings about the purchase of other users, those goods, and service, it is useful.
Therefore, there is need over the system by which the user of the Internet enables it to begin goods and the commercial transaction about service.
Outline of invention In the 1st example of this invention, the approach and payment system for using it on this network so that the commercial transaction for which the user of semi- public networks, such as the Internet, needs payment of the fund to other users [user / of this network / one] can be performed are offered. This example includes employment of the computer system for exchanging a message with a user on a network. If a message is received from the seller side user who has received license on a network, a message will be sent to the buyer side user specified by the message from the seller side user on this network. The message to a buyer side user searches for the check about the dealings specified by the message received from the seller side user. If a check is received from a buyer side user on a network,

from a network, it will pay to a seller side user's agent through the safe root shifted, and information will be sent. If a license sign is received from the agent by the side of a seller, the signature by cryptography will be made by the license sign, and it will be sent to a seller side user on a network.
Easy explanation of a drawing Drawing 1 is the block diagram of the 1st example of this invention in which paying for and showing a system.
Drawing 2 is the block diagram in which drawing 1's paying for and showing the hardware configuration for a system.
Drawing 1 pays drawing 3 and it is the block diagram of the program configuration of a system.
Drawing 4 A is drawing of the data field for a buyer's cardholder account which drawing 1 pays and is used by the system.
Drawing 4 B is drawing of the data field for a seller's account which drawing 1 pays and is used by the system.
Drawing 5 is the flow chart which drawing 1 pays and uses a system and which pays and shows the flow of the message for a claim, and is **.
Drawing 6 A-6F are drawing of the data message which drawing 1 pays and is used in relation to a system.
Drawing 7 is a flow chart which drawing 1 pays and uses a system and which is made to pay and ask each other, and pays, and shows the flow of the message for a reply.
Drawing 8 is a flow chart which shows the flow of the message which drawing 1 pays and uses a system, in order to communicate with a seller's agent.
Drawing 9 is a flow chart which shows the flow of the message for sending the license sign which drawing 1 paid and was enciphered by the seller using the system.
Detailed explanation I. about a desirable example The whole of a system Drawing 1 is the block diagram of this invention in which paying for and showing the 1st example of a system 10. The payment system 10 is illustrated in relation to the Internet network 12. The Internet network 12 is a large-scale semi- public network which has many users 14. The Internet network 12 is the thing of the class which a user can access with various means, such as for example, a permanent communication link and an ordinary commercial telephone system. The Internet network 12 provides a user with service of a large number, such as an E-mail, FTP, and World Wide Web (WWW). It can pay and a system 10 can also use this payment system in relation to other networks which have two or more users who can communicate beneficially especially because of the Internet mutually at an E-mail.
In the example of drawing 1 , one user 14 (called a buyer 20) wishes for goods or service to come to hand from other users (called a seller 28). A seller 28 may be what kind of user with the product or service to sell. Goods and service contain anythings that can be sold, such as counseling about clothing, household appliances, a computer, an automobile, and a technique, and consultation. The information product which can be electronically transmitted through networks, such as the Internet, also includes goods and service.
The seller 28 desires to sell goods or service 26 at a certain price to a buyer 20. the price is an advertised price by or other media for example, the Internet top -- a notice plate -- it is, or is a negotiation price (for example, it negotiates through the message on the Internet, or exchange of an E-mail). Although the example of drawing 1 is drawing one seller 28 and one buyer 20, it pays and is understood as a system 10 being extended so that many sellers, and many sellers and many buyers may be included to many buyers and one buyer about one seller. Moreover, a seller and a buyer may be an individual, a firm, or a public facility.
The financial processing settlement system 30 is also shown in drawing 1 . The financial processing settlement system 30 represents the system on the commerce available now which performs financial processing of a credit or others. For example, the financial processing settlement system 30 is a credit card processing firm (for example, visa (Visa), a master card (Mastercard)) available on a current commercial target.
De Dis covering (Discover) etc. is expressed. The financial processing settlement system 30 contains two components 32, i.e., a publisher, and a recipient 34. A publisher 32 publishes a credit card to people, and includes the bank which brings payment together for a loan table and a bill in a card holder from delivery and a card holder periodically, or other firms. On the Internet, these functions are not performed and use license direct pulling down ordinary mailing from a bank account etc.
This example pays, and a system 10 charges the user who paid on these commerce using the available publisher 32, and sold and bought on the Internet 12 using the system 10, and collects payments from a user. For example, a user's commercial transaction which paid and was started using the system 10 serves as a display of the claim amount of money from the seller 28 on a user's credit card, and appears.
As already stated, the financial processing settlement system 30 also contains the recipient component 34. This recipient component 34 includes the firm of a bank and others which offers a quotient population seat in the actual existence object which wants to receive goods or the price about sale of service. The quotient population seat is similar

or the same as that of the ordinary quotient population seat with which a firm etc. is provided. A recipient 34 processes the user tariff which was paid and was received from the system 10, and hands the publisher component 32 which draws up a monthly loan table and a monthly bill, sends the information to a user, and raises price from a user so that it may mention later.

The payment system 10 contains the system 42 under a system 40 and Rhine (below-the-line) on two separate parts or a separate system, i.e., Rhine, (above-the-line). The Rhine top system 40 and the bottom system 42 of Rhine are separated by "fire-wall" 44. Rhine 44 has isolated the Rhine top system 40 from the bottom system 42 of Rhine. Although Rhine 44 allows the communication link to which it was limited between the Rhine top system 40 and the bottom system 42 of Rhine, it prevents unauthorized access to the bottom system 42 of Rhine which lets the Rhine top system 40 pass. Rhine 44 protects the information included in the bottom system 42 of Rhine, and prevents that the hacker on the Internet invades into the bottom system 42 of Rhine through the Rhine top system 40.

Drawing 2 is the block diagram showing the configuration in which one implementation of the hardware configuration element used for drawing 1 to pay and to realize a system 10 is possible. The Rhine top system 40 contains the computer 50 on Rhine (or "front end"), and the bottom system 42 of Rhine contains the computer 52 under Rhine (or "back-end"). The Rhine top computer 50 and the bottom computer 52 of Rhine are mutually connected through the private network 53. In the desirable example, a private network is an Ethernet network. The Rhine top computer 50 includes the Rhine top system board 54 which accompanies the Rhine top memory 56, the stores 58, such as a fixed-disk drive, the backup tape drive 60, the removable medium drive 62, the monitor 64, and the power source 66. The Rhine top computer 50 is connected to the Internet 12 by T1 line 69 rented.

The bottom computer 52 of Rhine includes the bottom computer system board 68 of Rhine which accompanies the bottom computer memory 70 of Rhine, the bottom computer stores 72 of Rhine, such as a fixed-disk drive, the backup tape drive 74, the removable medium drive 76, the monitor 78, and the power source 80. The bottom computer 52 of Rhine is connected to the Rhine top computer 50 by the Ethernet cable. Nobel LAN 81 who offers a safe communication link apart from the Internet has the bottom computer 52 of Rhine.

Both the Rhine top computer 50 of this example and the bottom computer 52 of Rhine are commercial Sun Microsystems (Sun Microsystems) SS1000 mold computers preferably. Preferably, both the Rhine top computer 50 and the bottom computer 52 of Rhine have 64MB of memory. As already stated, an exclusive private network is Ethernet and contains the SBus host adaptor.

A communications server is a Sun Microsystems SPARCserver1000 mold server. Both the Rhine top monitor 64 and the bottom monitor 78 of Rhine are commercial 17 inches (Sun) mold monitors of Sun. The Rhine top tape drive and the bottom tape drive of Rhine are python (Python) 5GB tape drivers which use the 4mm tape marketed from Sony Corp. The Rhine top disk drive 58 and the bottom disk drive 72 of Rhine are commercial sea gate (Seagate) 1.7GB disk drives. A host adaptor is the Sun Microsystems SBus host adaptor. A Network Server is commercial Microsystems SSarray 101. The Rhine top computer 50 and the bottom computer 52 of Rhine may be computers similar to the front end computer and back-end computer which are indicated by the aforementioned related patent application 08th / No. 308,101, or same.

If drawing 3 is referred to, the Rhine top computer 50 will operate the program 90 on Rhine. The program 90 on Rhine is a software program which processes the communication link with the user 14 on the Internet 12. Specifically, the program 90 on Rhine contains the module which the Internet user who is the Internet user and seller 28 who are a buyer 20 can access and use.

The bottom computer 52 of Rhine operates the program 92 under Rhine. The program 90 on Rhine communicates with the program 92 under Rhine through the private network 53. Therefore, the program 90 on Rhine is physically separated from the program 92 under Rhine. The program 92 under Rhine exchanges the program 90 on Rhine, and information by batch processing. It pays partially with the part 40, i.e., the Rhine top system, which it changes from a fire wall or Rhine 44, and it can pay, and a system is open and can be accessed, and is a thing between the safe parts 42 of a system, i.e., the bottom system of Rhine, which essentially brings about a safe correspondence procedure.

The user 14 who is a buyer in order to access the program 90 on Rhine on the Internet uses the user interface software program 118 which can be operated on its own computer, in order to carry out conversational-mode access, or in order that a user 14 may do store-and-forward-switching access, can pay through an ordinary E-mail program, and can access a system 90. Similarly, in order to carry out conversational-mode access, by operating the interface software program 119 on its own computer, the user who is a seller 28 accesses the program 90 on Rhine on the Internet, or can pay through an ordinary E-mail program, and can access a system 10. Programs 90, 118, and 119 are written with programming language of suitable arbitration, such as Tcl and C. it may be used coming out and a software module can move [a UNIX (UNIX) operating system, DOS, and] this module to other various operating systems.

II. The account of a buyer and a seller is opened. In order to pay for dealing as a buyer of the user of the Internet and to use a system 10, the user pays, and it is a system 10, and he is a subscriber (cardholder).
An account 100 comes to hand. A buyer's cardholder account may be similar or the same as that of the cardholder account currently explained by related patent application. In order to pay for dealing as a seller of the user of the Internet and to use a system 10, the user pays and receives a seller's account 200 by the system 10. Each user can pay according to an individual, and a system 10 can open a suitable account, or a bank can pay, it can arrange by the system 10, and the suitable account for many customers, such as a credit card customer of the bank, can be offered as a thing of strengthening or sales promotion. The description of the account of a buyer and a seller is as follows. : A. A buyer's account Reference of drawing 4 A shows the data of a buyer's cardholder account 100. A buyer's cardholder account 100 includes the following information 102, i.e., a card number, a cardholder's name 103, a cardholder's Internet e-mail address 104, a condition 106, and the payment selection 108. These items are explained later. Moreover, the cardholder account 100 may be paid and may include the information on the addition of selection and selection currency 112 grade as indicated by the aforementioned patent application.
The cardholder number 102 specifies the cardholder account 100 uniquely. The cardholder number 102 is the character alphanumeric string which people can type easily and can read. Moreover, it is hard to presume the cardholder number 102 in proportion, and it does not have the relation related to finance, such as a credit card number and a checking account, in which a thing and presumption are possible, and does not have the relation which can be presumed to be also an e-mail address.
A cardholder's name 103 is a cardholder's actual name, a name on business, or an alias name.
The address 104 of a cardholder's Internet E-mail is an e-mail address of a proper at each user of the Internet of a cardholder.
A condition 106 is either "active", "a hold" or an "invalid."
The payment selection 108 is the approach, i.e., the approach of carrying out payment, pay and a cardholder moves funds by use of a system 10. Usually, this can be performed by asking a credit card for price by ordinary license. A card number does not encode and payment selection cannot be immediately presumed from a card number.
the user of the Internet who wants to pay [user] in order to purchase goods or service on the Internet, and to use a system 10 is explained in the aforementioned patent application -- **** -- making -- or the website -- the 1st -- being virtual (First Virtual) -- a cardholder account or a subscriber account is acquirable by proposing.
B. A seller's account The user of the Internet who wants to pay [user] and to use a system 10 as a seller needs to have rating given. While carrying out insurance of the seller 28 about a credit competence, rating is given to a seller by setting up relation with the acquisition bank 34 which provides the seller 28 with a quotient population seat. The acquisition banks 34 are some settlement systems 30 as shown in drawing 1 . If a quotient population seat is established, a seller 28 can act as a merchant and can receive the credit card (or credit card number) for [which receives goods and service] paying.
If drawing 1 is referred to, when a user can give rating as a seller, the user also sets up relation with a seller's agent 115. A seller's agent 115 is a banking card processor which has a dialog with the credit card stations 117 which are some settlement systems 30, such as visa (Visa) and a master card (Master Card). A seller's agent 115 performs the function of credit card license and the charge back. The firm which is offering these services today is EDS and FDR ****. For example, in ordinary credit card dealings at a retail store, after a customer presents a credit card for payment, a salesclerk lets the card pass to the card reader which telephones a banking card processing firm for license. The telephone from a card reader specifies the number and the amount of selling of the card. The credit card is effective, and if a frame is less than the credit loan limit of the card, a seller's agent 117 will answer with a license sign. It must pay and a seller's agent 115 has to perform the same function in the context of this example of a system as this agent is carrying [this] out about ordinary credit card dealings today. Many sellers' agent may accompany various sellers, and many sellers may employ the same agent. In the alternative example, it can pay and a system 10 can perform seller's agent's function.
The user of the Internet who wants to pay [user] in order for the payment about dealing to come to hand as goods or a seller of service, as already stated, and to use a system 10 pays, and receives a seller's account 200 by the system 10. If drawing 4 B is referred to, a seller's account 200 includes the card number of the following data, i.e., a seller's account, a seller's name 203, a seller's Internet e-mail address 204, and the condition 206. These data are the same as the data of a buyer's cardholder account 100. A seller's account 200 includes at least one additional data item which is not included in a buyer's cardholder account, namely, a seller's account 200 contains seller's agent's number 219. Moreover, a seller's account may include other information.
If drawing 3 is referred to again, buyer cardholder account information and seller share seat information pay, and it is

distributed by the system 10. A part of buyer cardholder account information and seller share seat information reside in the Rhine top system 40 which can access the information in it by the program 90 on Rhine permanently. However, the perfect copy of the cardholder account information of all buyers and sellers resides in the bottom system 42 of Rhine which can be accessed by the program 92 under Rhine permanently. Specifically, a part of account information of the subscriber who resides in the Rhine top computer 50 permanently, and a seller is put on one or more data files 91 memorized by the store 58 of the Rhine top computer. The account information of the subscriber who resides in the bottom computer 52 of Rhine permanently, and a seller is put on one or more data files 114 memorized by the store 72 of the bottom computer of Rhine. The program 90 on Rhine operates by the database file 91 memorized by the Rhine top store 58, and the program 92 under Rhine operates by the database file 114 put on the bottom store 72 of Rhine. The information item of the buyer cardholder account put on the file 91 of the Rhine top computer 50 includes the subscriber account number 102, a cardholder's name 103, the Internet E-mail address information 104, and a condition 106. However, the Rhine top computer 50 does not contain at all payment of credit card information which accompanies subscriber who is buyer 108 information. A credit card or others pays and information is put only on the data file 114 put on the store 72 of the bottom system 42 of Rhine. Similarly, the information item of a seller's account 200 put on the Rhine top system 40 includes a seller's account number 202, a seller's name 203, a seller's Internet E-mail address information 204, and the condition 206 of a seller's account. However, the Rhine top system 40 does not contain a seller's agent number 219. This information is put only on the data file 114 of the store 72 of the bottom computer 52 of Rhine.

III. How to pay and to employ a system As already stated, it pays and a system 10 offers the means for carrying out payment to the means for processing by paying to the user of the Internet especially goods, and service.

On the purpose of an operation of the example currently explained in this book, the Internet user who wants to carry out payment is paid as mentioned above, and the premise of saying [already opening the cardholder account of the buyer in a system] is carried out. Furthermore, the Internet user who wants to receive payment pays as mentioned above, and the premise also of also saying [already opening the account of the seller in a system system] is carried out.

If drawing 5 is referred to, the user (namely, buyer 20) of the Internet will get to know the goods or service which the seller is going to sell. A user gets to know it by various approaches. For example, a buyer 20 may look for a specific product or the seller of service on the Internet. Moreover, the buyer 20 "is skimming" and may find a seller's page by chance. Moreover, a seller 28 may send the method of a notice, and a message for the goods or service which he wants to sell to the Internet user of a certain kind. Through the advertisement on the Internet or other media, a buyer 20 may let others pass or may notice a seller 28 with a certain other means from the product storage area on the Internet (a product warehouse) from a notice plate.

a buyer 20 coming to get interested in the goods or service which the seller 28 is going to sell, and sending a message to a seller's Internet address -- or -- for example, a seller 28 may be contacted with interactive protocols, such as World Wide Web and FTP. The means for taking the seller and communication of a seller's e-mail address, the website address, etc. may be included in the advertisement etc. Before a buyer 20 decides a buyer 20 and a seller 28 to purchase goods or service from a seller 28, they can exchange messages mutually on the Internet. For example, a buyer 20 can send a message to a seller 28, in order to ask about the availability of a product, a specification, an option, exchange organization, etc. A seller 28 can answer by the message suitable on the Internet for an inquiry of a buyer. Moreover, a buyer and a seller can exchange messages, in order to negotiate for the goods or the price of service. Moreover, when it is the thing of the class for which the goods or service which a seller wants to sell needs physical delivery, a buyer and a seller can arrange suitably about the delivery by the message switching on the Internet.

If it decides that a buyer 20 will buy goods or service, a buyer 20 will inform a seller 28 of a buyer's card number 102 by sending the suitable message 128 on the Internet 12. The information included in a buyer's message 128 is displayed on drawing 6 A. A message 128 can take the form of the E-mail on the Internet 12 containing a buyer's card number, or a buyer 20 can inform a seller of his card number 102 by using an interactive protocol or including the card number in a user's name in the file transmitted to a seller 28 from a buyer 20 using the means of the Internet 12 or others.

Drawing 5 is referred to again. If the message 128 of the buyer containing a buyer's card number 102 is received, a seller 28 will pay through the Internet 12, will pay for a system 10, and will send a solicited message 129. A seller 28 pays and, specifically, sends a solicited message 129 to the program 90 of the Rhine top system 40 on Rhine. The payment solicited message 129 is an E-mail, or is sent on the Internet 12 using an interactive protocol.

Drawing 6 B is referred to. The payment solicited message 129 includes physical delivery 237 information for the following information 102, i.e., a buyer's card number, a seller's card number 202, the explanatory note 232 about the dealings, a frame 234, a merchant's dealings identifier 236, and purchase.

After receiving the payment solicited message 129, it pays, a solicited message 129 gives rating, and the program 90 on

Rhine confirms [the] whether it is a thing from the ******** seller 28. It is performed when the program 90 on Rhine checks the database file 91 of the Rhine top system 40. If it is checked that it is a thing from the seller to whom the payment solicited message 129 has rating, it will pay and a system 10 will create the message about which a seller 20 is asked [whether he wants to approve payment by the seller 28 about the dealings, and]. On the Internet, the program 90 on Rhine becomes sent to a buyer 20, is paid, and, specifically, creates the inquiry message 140 as shown in drawing 7 .

It pays and the inquiry message 140 contains the following data 142, i.e., a dealings identifier, a buyer's name 103, a seller's name 203, the explanatory note 232 about the dealings, and the frame 235 as shown in drawing 6 C. The dealings identifier 142 is the number or sign created by the program 90 on Rhine peculiar. On the information and the concrete target which pay from a seller 28 and are contained in the solicited message 129, the program 90 on Rhine investigates a buyer's name 103 and a seller's name 203 using a buyer's card number 102 and a seller's card number 202. By the payment inquiry message 140, in order to raise the safety of a system by making transmission of the card number information on the Internet into the minimum, a buyer's name 103 and a seller's name 203 are used instead of a buyer's card number 102 and a seller's card number 102. The frame 235 sent to a buyer in order to liquidate about the courtesy rates which are paid and a system 10 imposes and the amount 234 of dealings received from the seller may differ from the currency exchange rate.

After creating the payment inquiry message 140, the Rhine top system 40 is paid, sends the inquiry message 140 to a seller's e-mail address, and waits for the reply from a seller 20. Three reply: "yes" and no ["no"], the payment inquiry message 140 requests a buyer 20 to answer by one of "imitation." Therefore, it pays, and there is four alternative as a response to the inquiry message 140, namely, there are alternative that a buyer takes the three permitted replies into consideration, and alternative of not answering.

1. With buyer to no reply If it pays from a buyer 20 and there is no reply to the inquiry message 140 even if a certain time amount passes, the Rhine top system 40 will be paid, and will send the inquiry message 140 once again, namely, will send the 2nd notice. The Rhine top system 40 can be paid and can send the inquiry message 140 to a buyer 20 several times until a reply is obtained from a buyer 20. If the reply with the suitable Rhine top system 40 is not received from a buyer 20 even if the number which a number exceeding fixed days of days pass, or exceeds fixed numbers pays and the inquiry message 140 becomes undecided to a buyer 20, the Rhine top system 40 puts a buyer's cardholder account 100 on hold. This is performed by changing buyer's cardholder's condition 106 into "a hold", since "active". If a suitable reply is received, and/or the non-decision about a buyer 20 pays and the number of the inquiry messages 140 becomes less than a fixed threshold, a buyer's account 100 can be returned behind.

When returning, a buyer's account 100 is returned to an "active" condition. Furthermore, non-decision can pay behind for a while, and the inquiry message 140 can be sent again.

2. A buyer answers "no". If drawing 7 is referred to, it pays and the inquiry message 140 is answered, and a buyer 20 can pay through the Internet 12 and can send the reply message 150 to the Rhine top system 40. It pays and the reply message 150 contains the following data 152, i.e., a buyer's volition display of paying and consenting the dealings identifier 142 of system creation, and the move of funds readily, as shown in drawing 6 D. "Yes" and no ["no"], the ready consent volition display 152 is either of the "imitation."

A buyer 20 pays the structure of the payment inquiry message 140, and it is tending to create [come] the reply message 150. By the payment inquiry message 140, the dealings identifier 142 pays and it is put on the "title" of the inquiry message 140, and the e-mail address (for example, "response@card.com") to which a buyer pays and the reply message 150 is sent pays, and is put on "an informer's address" of the inquiry message 140. The ordinary E-mail program including much old programs of a large number used on the Internet reads automatically the "title" and "an informer's address" of a message which were received, and has the function which formats the reply message which should be sent to an informer's addressing to the address on the same "title" as that of the received message. although the information on only [which a buyer 20 has to add] which he pays using this common function, and a buyer 20 pays the reply message 150, and returns to a system 10 will be the ready consent volition display 152 if it becomes -- it -- only one word or the reply (namely, -- " -- "and no ["no"], it is and they are "imitation" or "Y", "N", or "F".) of one character

If a buyer 20 answers by the ready consent volition display 152 of "no", the Rhine top system 40 will send the payment result 160 accompanied by the "no" display 152 to a seller 28. It pays and the format of the result message 160 is shown in drawing 6 E. The payment result message 160 includes (the case to begin where it pays and a seller's dealings identifier 236 is in a solicited message 129) with the following information 142, i.e., a dealings identifier, a seller's name 203, a buyer's name 103, the explanatory note 232 about dealings, the frame 235, the negative volition display 152 of the buyer who denies ready consent of fund transfer, and a seller's dealings identifier 236. The original amount

234 of dealings may be contained in optional. When a buyer refuses to approve payment, it may pay and the courtesy rates by the system may arise to a buyer 20.
For the information about a "no" reply of the buyer in the payment reply 150, courtesy rates are a buyer's 20 liquidation queues (a settlement queue) as it is sent to the program 92 under Rhine from the program 90 on Rhine and related application explains here.
It may be alike and may be added. Furthermore, if the "no" display more than the count of fixed is received by a fixed number of dealings over fixed time amount, the condition 106 of a buyer's account 100 may be "suspended." It is for preventing that a user performs an order of a product, without approving payment of price. If the condition 106 of a buyer's account is suspended, the information will be sent to the program 92 under Rhine from the program 90 on Rhine by batch processing so that the cardholder account information on the bottom computer 52 of Rhine may be in agreement with it of the Rhine top computer 50.
3. A buyer answers that it is "imitation". Drawing 7 is referred to again. If it pays by [which pay and sends the reply message 150 to the Rhine top computer 50 through the Internet 12] having displayed the buyer 20 as "imitation" by the ready consent volition display 152 and replies to the inquiry message 140, it will pay and, as for a system 10, the condition of a buyer's cardholder account 100 will be changed "invalid". The reply "imitation" means that a buyer 20 did not ask a seller 28 for goods or service. The information that the buyer 20 answered that it was "imitation" by the ready consent volition display 152 is sent to the program 92 under Rhine from the program 90 on Rhine by batch processing so that the cardholder account information on the bottom computer 52 of Rhine may be in agreement with it of the Rhine top computer 50. If a buyer 20 answers that it is "imitation", a suitable message will be sent to a seller 28.
4. a buyer -- " -- be and answer that it is " paying -- the inquiry message 140 -- receiving -- a buyer 20 -- the ready consent volition display 152 -- " -- if it answers by [which pay and sends the reply message 150 to the Rhine top system 40 through the Internet 12] being and having displayed it as ", the program 90 on Rhine will transmit dealings information to the bottom system 52 of Rhine by batch processing.
The information told to the bottom system 52 of Rhine from the Rhine top system 50 includes a buyer's card number 102, a seller's card number 202, the dealings number 142, the amount 235 of dealings, and the physical delivery information about the purchase.
A buyer pays a buyer's identified card number 102, and the bottom system 52 of Rhine relates it with information, when the information is received from the Rhine top system 50. This information is accumulated in the data file 114 of the bottom store 72 of Rhine. Moreover, the bottom system 42 of Rhine relates a seller's account number 202 with a seller's agent number 219 accumulated in the store 72 of the bottom system of Rhine.
Next, drawing 8 is referred to. The bottom system 42 of Rhine is a seller's agent number.
It communicates with the agent 115 of the seller related with 219. A seller 203, the amount 235 of dealings, and a buyer pay the communication message 250 to a seller's agent 115, and it specifies the physical delivery information for information (for example, a buyer's credit card number) and its purchase. The communication link 250 to a seller's agent is performed by the safe communication link root distant from the Internet. It asks for whether it approves that a communication message 250 asks a buyer's credit card for the frame 235 with which a seller's agent 115 is displayed. If a seller's agent 115 accepts the claim, he will send the license sign 260 to the bottom system 40 of Rhine. If the license sign 260 is received, the program 92 under Rhine will create the code signature about the license sign 260. In the desirable example, open key cryptographies, such as a program which can come to hand from RSA or PGP, are used. It is very desirable to guarantee that the informer of a license sign is a genuine article for the purpose of insurance. Therefore, open key cryptography is used in order to prove that an informer's message (in this case paying message of a system 10) is a genuine article, and in order to prevent that other men read a license sign, it is not necessarily used.
Batch processing of the license sign 262 with a signature is carried out, and it is sent to the Rhine top system 40 from the bottom system 42 of Rhine across Rhine 44. Drawing 9 is referred to. If the license sign 262 enciphered from the bottom system 42 of Rhine is received, the Rhine top system 40 will be paid, will create notice 264, and will send it to a seller 28. The notice 264 of payment may be the E-mail message of the clear text containing a seller's dealings identifier 236 and the license sign 262 signed by cryptography. The information which pays and is included in the informative message 264 is displayed on drawing 6 F. If it pays and notice 264 is received, it can pay and a seller 28 can check the thing which was used by the encryption program of the bottom system 42 of Rhine and whose license sign 260 is a genuine article using the open key of a system. If it checks that a message 264 is a genuine article, a seller 28 will do procedure which delivers goods or service to a seller 20 by arrangements performed beforehand.
Processing of the entry to the credit side of the quotient population post of the claim and seller to a buyer's credit card account is performed by the safe communication link root distant from the Internet with the ordinary settlement system

30. Thereby, the activity of a buyer and a seller performed on the Internet, and the finance and the credit activity which are performed by separating from the Internet are isolated.
If a seller's agent 115 admits a buyer's card, a claim will be processed by the approach ordinary with the credit card system 30, in order to tell a buyer's credit card about the claim amount of money by the conventional method by sending suitable information to a buyer's credit card publisher 32. A buyer's credit card publisher 32 usually sends a credit card bill to a buyer 20 by mail. A credit card bill enumerates the amounts billed 235 as an item on a user's credit card bill. A settlement system 30 also carries out arrangements for payment [a seller 28]. It may be the change from the recipient-bank 34 to a seller's bank for performing direct deposit to a seller's checking account.
For example, if the credit card is lost, or it is stolen, is canceled, or is invalidated or a seller's agent 115 refuses admission of a buyer's credit card number by the amount of dealings having exceeded the limit of a card etc., a seller's agent will not return a license sign to the bottom system 42 of Rhine. Instead, a seller's agent can send the sign which means refusing a buyer's card. Similarly this information is put in block, and is sent to the Rhine top system 42, and the suitable message which means that there is no license is sent to a seller 28. A seller 28 can refuse to deliver goods or service to a buyer 20, or can charge another card number.
The above description explains how it pays using the credit card system which can be used commercially, and a system processes the claim to a user. The above-mentioned approach can be amended variously and can be used. For example, the publisher bank 32 may process the entry to the debtor of a buyer's 20 bank account instead of sending a credit card bill. Or the publisher bank 32 may send the bill (except for a credit card bill) about the accumulated amount billed to a buyer.
As already stated, seller's agent's function is not by the independent stereo, is paid, and may be performed by the system. In this way, instead of notifying the information (namely, a seller, the amount of dealings, a buyer's credit card number, physical delivery information, etc.) about dealings to the independent thing (this agent answering whether he approves those dealings) selected by the seller as a seller's agent, it can pay and a system can perform this function by itself. When this function is paid and a system performs, this function is performed by the bottom system of Rhine, or other completely another safe systems. As well as the independent seller's agent, it pays, and in order to determine whether a system approves dealings with the frame specified by the communication message from the Rhine top system, a suitable credit card enterprise object and communication are taken. A payment system performs the agent's of the seller's of creating a license sign function. Then, as well as the case of the above-mentioned example which has an independent seller's agent, it pays, and a system creates the message containing the license sign signed by cryptography, and sends to a seller the message signed by the Rhine top system by delivery and cryptography in the message on the Internet.
The above pays and the system is advantageous to especially using it in a network without concentration mold management engines, such as the Internet. As such a system, although there are FIDOnet and UUCP/other Usenet, it turns out that there are some persons who think that these systems are what accompanies a part of Internet or the Internet. The above can pay in the future version of the Internet, a generation, etc., and a system can also be used. This payment system can also be used by centralized-control mold computer systems, such as America Online (America Online) and Prodigy (Prodigy).
The above pays, and it is concerned with the location in which a user is present, and this location on which it pays and the system is put, and there is no system and it makes it possible for the user of the Internet to start a commercial transaction on semi- public networks, such as the Internet, and to buy or sell goods or service. A buyer or a seller may be in the U.S. and there may be out of the U.S. Moreover, the Rhine top system or the bottom system of Rhine may pay, and may place some or all of a component of a system the U.S. or out of it.
The above detailed description should be understood as what does not limit and shows an example, and it means that the claim of attachment containing all equivalents demarcates the range of this invention.

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